

UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING

EOH '85

Method to the Madness

MARCH 1st & 2nd 1985
CHAMPAIGN · URBANA

PROGRAM
of
SPECIAL EVENTS
with
DEPARTMENT
and
SOCIETY
EXHIBITS

Friday, March 1

9 am — 4 pm

Saturday, March 2

9 am — 3 pm

SPECIAL EXHIBITS

Coordinated Project

Food Production Technology
308 Engineering Hall

Central Exhibit

Mind Over Matter Yields Understanding
Loomis Laboratory—Main lobby

DEPARTMENTS

Woodshop and Aero Lab B

- * Tornado Box
- Wind Tunnel
- Aerospace Structures
- Supersonic Flow Simulation
- Magnus Effect
- Vortex Gun
- Solar Energy
- Propulsion: The Ramjet
- New Frontiers (NASA)
- Planetary Flyby
- Gliders
- Aerospace Industrial Displays
- Wind Power
- Coanda Effect
- VSTOL (AIAA)

AGRICULTURAL ENGINEERING

American Society of Agricultural Engineers
Agricultural Engineering Sciences Bldg.

Laser Corn Defect Detection
Soil Organic Matter Sensor
Soybean Harvesting
Lasers in Pesticide Application
Electric Motor Starting Requirements
Vibration Testing
Innovative Swine Housing
Load Testing of Building Materials
Rainfall Simulator Calibration
Soil Erosion—Land Slope and Length
Soil Erosion—Residue and Canopy Cover
Soil Erosion—Tillage Practices
Fine Soil Particle Enrichment
Simulated Tractor Performance

BIOENGINEERING

Electrical Engineering Building

Wheelchair Project
ECG Monitor
Cardiac Assistance Devices
Sport Biomechanics
Artificial Organs
Artificial Joints and Implants
Ultrasound Doppler Bloodflow Detection
Audiometer
Equipment for the Blind Student

CERAMIC ENGINEERING

Ceramics Building

- * Refractories
- * Strength Demonstration
- Crystallography
- * Glass
- Thermal Analysis
- Digital Thermal Analysis
- Fabrication of Hybrid Circuits
- Ferrites
- Capacitor Fabrication
- * Porcelain Enamels
- Forming Process
- Ceramics Applied to Automobiles
- Bio-Ceramics

CHEMICAL ENGINEERING

American Institute of Chemical Engineers
Roger Adams Lab, Noyes Lab

- Polystyrene Synthesis
- Process Control
- * Ester Chemistry
- * Rootbeer Manufacture
- * Polystyrene Injection Molding
- Magnetic Fluidized Bath
- * Dr. Haight's Magic Show (100 NL)

CIVIL ENGINEERING

Talbot Lab, Crane Bay, Astronomy Building

Surveying
Bridge Structures
Underground Tunnel Testing
Earthquake Engineering
Environmental Engineering
Model Span Contest
Touch and Shovel Game
Assembly Hall Construction
Geotechnical Engineering

- * Quick Sand
- * Dominos in Structures
- Computer Aided Design
- Concrete Cylinder Contest (AGC)
- Traffic Planning (ITE)
- Concrete Lunar Space Station (XE)

COMPUTER SCIENCE

Digital Computer Lab

Digital Canvas
Sleep Stage Scoring
Work Efficiency Evaluation Tool
Heuristic-based Chess
In the Navy
Computer Graphics

- * The Computer Contest
- Midas Chip Design
- * The ACM Programming Contest

ELECTRICAL AND COMPUTER ENGINEERING

Electrical Engineering Building

A Robot Society
An Intelligent Personal Robot
Synthesizer and Sequences

A Self-contained Personal Robot
IBM Corporation
Advanced Digital Systems Lab

- * Musical Enlightenment
- * Graymark Robots
- Modification of a Synthesizer
- * Zenith Corporation
- Digital Audio (IEEE)

ENGINEERING MECHANICS

TAM/AAM

Talbot Laboratory

Materials Engineering
Experimental Stress Analysis
Concrete Cylinder Crushing
Fluids Lab Demonstration
Dynamics

GENERAL ENGINEERING

Illinois Society of General Engineers
Gamma Epsilon

Transportation Building

Analog Computer
IBM PC Demonstrations
CAD/CAM System
Engineering Graphics
Apple Microprocessing
Computer Voice Recognition
Fluidics Display
Balsa Wood Structures

INDUSTRIAL ENGINEERING

American Institute of Industrial Engineers
Mechanical Engineering Building

- * Flight Simulator
- Inventory Control System
- Statistical Process Control
- Administration/Management Systems
- Numerical Control—CAD
- Robotics
- Operations Research
- Methods and Time Analysis
- Health Systems

MECHANICAL ENGINEERING

Mechanical Engineering Bldg., Woodshop,
Mechanical Eng. Lab.

Lockmiller Award Entries
A Host of Ingenuous Mechanisms
Automotive Systems Display (SAE)

- * ASME Vehicle Design Contest
- Solar Energy Lab. (Solar Energy Group)
- Building Energy Analysis
- Robot Simulation
- The Foundry: A Demonstration
- Fluid Flow Over a Cylinder

METALLURGY

Metallurgy and Mining Building

Forging

- * Passion Metal
- * Spin Casting
- Thin Film Surface Coatings

NUCLEAR ENGINEERING
American Nuclear Society
Nuclear Reactor Lab
Coordinated Sciences Lab

Positive Ion Column Glow Discharge
Clean-up System for Reactors
Theta-Pinch Can Crusher
Reactor Tours (198 CSL)
Radiation Display and Shielding
Activation Analysis

PHYSICS

Loomis Laboratory of Physics

- * Adventures in Freshman Physics
- * Rotating Prisms
- Colliding Droplets
- * Lasers
- Toy Room

SOCIETIES

**ASSOCIATION OF MINORITY STUDENTS IN
ENGINEERING (AMSIE)**

Electrical Engineering Building

Technology Quiz
A Robot
Optic Fibers
A Robot Arm

CO-OP STUDENT ASSOCIATION

Engineering Hall

Organization Display

ETA KAPPA NU

Computer Monitored Security Systems

SIGMA PHI DELTA FRATERNITY

301 Engineering Hall

Schlieren Pictures of Flames

SOCIETY OF WOMEN ENGINEERS

Mechanical Engineering Building

A Step in Time

TAU BETA PI

165 Electrical Engineering Building

- * Rube Goldberg "Do Nothing" Machine

TECHNOGRAPH

**Boneyard Creek—North of Electrical Engineering
Building**

- * Techno-raphy Cup

**Method to the
Madness**

Innovation is the product of rational development and careful modification, yet our world is becoming increasingly technological at a bewildering rate. This year's EOH wishes to stress the process by which man finds solutions. Engineering is then, in a sense, the method to the madness.

The primary goal of Engineering Open House is to educate the public about engineering, especially about engineering at the U of I. Visitors to this year's EOH will leave with a better appreciation of their technological world and a clearer understanding of how it came to its present state.

SPECIAL NOTICES

The exhibits marked with an asterisk (*) are those which the exhibitors feel children would enjoy.

Tours of displays and the Engineering Campus will leave periodically from the central tent. Shuttle buses are available around campus.

T-shirts, pins, and other souvenirs of EOH '85 will be available at the central tent.

The public is invited to participate in contests held during EOH. Prizes will be awarded. Contact the department, society, or central tent if interested.

EOH culminates with St. Pat's Ball and Awards Presentation at Round Barn Center Saturday at 7:00 p.m. Tickets are available at central tent.

Central Committee of Engineering Open House 1985 wishes to thank all students, faculty, corporations, and the public for their support and participation. We invite you to return to EOH '86!

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